

# Sixty Years of Botanical Exploration in Big Bend

Park Botanist Joe Sirotnak

The Chisos Mountains, with their high diversity and sky-island habitat, have historically attracted many amateur and professional naturalists. Despite the remote location and difficult access of this rugged mountain range, the majority of the plant species in the Chisos were well-documented by the founding of the National Park sixty years ago. As far back as 1885, pioneering botanist V. Havard recognized the unique character of the Big Bend flora and described many species previously unknown and endemic to the region. In fact, the efforts of these early naturalists, including Omer Sperry, C.H. Mueller, and E.G. Marsh, helped clarify the importance of protecting the diversity of the region by creating Big Bend National Park.

In the past sixty years, the park staff and cooperating scientists have built upon this knowledge base. In the 1950s and 60s, Barton Warnock, the longtime botanist at Sul Ross State University in Alpine, Texas, was instrumental in documenting plant species occurrence and habitat requirements and establishing long-term ecological monitoring plots in the park. Park staff use these data to design and implement restoration and conservation projects to maintain the fantastic diversity of life in the Big Bend. Current projects include grassland restoration in the Harte Ranch area, fostering riparian recovery at upland springs, weed control and re-establishment of native plant

communities in disturbed areas, and the cautious re-introduction of fire as an ecosystem process in grasslands and woodlands.

Park Biologists are currently mapping rare, endemic, and threatened plants parkwide. We use these data to protect existing known populations and to define habitat conditions of rare plants. In 2004, we are focusing on orchids. At least nine species of orchid occur in the park, with seven species being considered rare or very rare. Several species of saprophytic coralroot occur only in a few mountain ranges in Trans-Pecos Texas and adjacent Mexico. Big Bend National Park is one of the only protected areas in the Chihuahuan Desert that supports such orchid diversity. Recently, the rare plant mapping project uncovered a rare gem that had not been seen in the U.S. since 1931 – the Hidalgo ladies-tresses. Knowledge of the location and habitat of this and other rare plants allows us to prevent accidental disturbance of populations and to make decisions about the appropriate use of wildland fire in these systems.

Knowledge is power. Big Bend National Park is committed to using the ecological knowledge, and associated decision-making power, accumulated by dedicated staff and scientists, to protect these fragile ecosystems for the next sixty years and onward.



Hidalgo ladies-tresses (Deirigyne confusa)

## Wilderness or Not?

Ranger Angelina Yost

D. Rasch

Big Bend conjures images of vast open spaces, miles of land seemingly undisturbed by humans and available for visitors to explore and discover. This sense of wilderness is one of the most important resources recognized by visitors to Big Bend National Park. Indeed, Congress acknowledged the importance of this wilderness experience in 1964 when it passed the Wilderness Act:

*"In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness."*

The Wilderness Act ensures the strongest conservation protection possible to selected areas of public lands. Of all the federal agencies, the NPS has the strictest conservation management policy. Is it necessary to place additional wilderness protection designation on lands with the NPS? The NPS is constantly conducting a challenging balancing act between protecting resources and providing access to those resources for visitors. This dilemma is well illustrated if you look at the history of wilderness in Big Bend.

The demand for improvements in our national parks increased as visitation in the 1940-50's reached record levels. An NPS funding strategy to complete these maintenance projects by 1966 was called "Mission 66." In Big Bend National Park, this program included improving and building roads, trails, bridges, campsites, a lodge, a restaurant and cabins. These improvements finally produced the influx of visitors that had been promised to the West Texas communities since the park's establishment. However, the NPS was concerned about the impact of these visitors, especially the concentration of impact in the Chisos Basin. As a result, the NPS drafted a master plan in 1971 to limit the use of the Basin, and recommended that 79% of Big Bend National Park, or 559,600 acres, of the Park's 801,163 acres be designated as wilderness.

While receiving healthy revenue from increased tourism, some members of the communities surrounding the park opposed these new plans, fearing they would limit tourist opportunities. This view was voiced to local representatives. Therefore, al-

though Big Bend's Wilderness Proposal had been forwarded to Congress in 1978, it was withdrawn because of larger public debate about the designation. However, the NPS is mandated to manage land that is "proposed wilderness" as if it is wilderness, since there is a possibility that the designation may change in the future. For example, the NPS manages Big Bend's proposed wilderness areas by setting carrying capacities limiting overnight use in a given area, and by refraining from building campgrounds or other facilities in wilderness.

Ironically, for many visitors, Big Bend has a stronger "sense of wilderness" than many other public lands, which are officially designated wilderness. Here a person can walk for hours, or days, without seeing another soul. Every roadside pullout offers a panoramic vista with apparently no sign of man as far as the eye can see. Indeed, Big Bend seems to fit the description of a wilderness as defined in the Wilderness Act: *"A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and community of life are untrammeled by man, where man himself is a visitor who does not remain."*

Since the 1970's, most of Big Bend has been managed as if it were wilderness, and this does not seem to have hindered the local tourist economy. Actually, this "sense of wilderness" ends up being one of Big Bend's major attractions.

In Big Bend, people will find large areas of the park where a diversity of plants and animals, living naturally, are undisturbed by the developed areas. They will find the opportunity to let go of the modern technology of our world, and seek silence and solitude. They will find that history seems to be frozen in time. But these special areas cannot maintain these qualities without the support of concerned, activated citizenry who value wilderness. In the words of President Lyndon B. Johnson, as he signed the Wilderness Act in 1964, "If future generations are to remember us with gratitude rather than contempt, we must leave them something more than the miracles of technology. We must leave them a glimpse of the world as it was in the beginning..." As we celebrate the 40<sup>th</sup> anniversary of the Wilderness Act, and the 60<sup>th</sup> birthday of Big Bend National Park, why not honor your wilderness experience by helping to ensure that these tracts of preserved wilderness are a part of our legacy to the future too.